

AMENDMENT AND RESPONSE UNDER 37 CFR § 1.111

Serial Number: 10/749,928

Filing Date: December 29, 2003

Title: DRIVER CIRCUIT

Assignee: Intel Corporation

Page 3

Dkt: 884.A75US1 (INTEL)

IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) A circuit comprising:
a first driver to receive a first signal from a first input port;
a second driver to receive a time-delayed version of the first signal from a second input port; and
a transformer coupled to the first driver and the second driver, the transformer to provide an output signal to an output port, the output signal being a half-raised cosine signal corresponding to the first signal and the second signal.
2. (Original) The circuit of claim 1, further comprising a capacitive load coupled to the transformer.
3. (Currently Amended) ~~The circuit of claim 2,~~ A circuit comprising:
a first driver to receive a first signal from a first input port;
a second driver to receive a time-delayed version of the first signal from a second input port;
a transformer coupled to the first driver and the second driver, the transformer to provide an output signal to an output port; where ~~wherein~~ the transformer has a leakage inductance and the capacitive load has a capacitance, and the time-delayed version of the first signal is time-delayed with respect to the first signal by a time about equal to a product of pi and a square-root of a product of the leakage inductance and the capacitance ; and
a capacitive load coupled to the transformer.
4. (Currently Amended) The circuit of claim 3 ~~[[1]]~~, further comprising an inductor coupled to the transformer and a transistor coupled to the inductor.

AMENDMENT AND RESPONSE UNDER 37 CFR § 1.111

Serial Number: 10/749,928
Filing Date: December 29, 2003
Title: DRIVER CIRCUIT
Assignee: Intel Corporation

Page 4
Dkt: 884.A75US1 (INTEL)

5. (Currently Amended) ~~The circuit of claim 4,~~ A circuit comprising:
a first driver to receive a first signal from a first input port;
a second driver to receive a time-delayed version of the first signal from a second input
port;
a transformer coupled to the first driver and the second driver, the transformer to provide
an output signal to an output port;
an inductor coupled to the transformer and a transistor coupled to the inductor in which
wherein the inductor has an inductance and the transistor has a capacitance and the time-delayed
version of the first signal is time-delayed with respect to the first signal by a time about equal to
a product of pi and a square-root of a product of the inductance and the capacitance ; and
an inductor coupled to the transformer and a transistor coupled to the inductor .
6. (Currently Amended) The circuit of claim 5 ~~[[1]]~~, further comprising a Schmitt trigger
circuit to couple the output port to the second input port.
7. (Original) The circuit of claim 6, wherein the Schmitt trigger circuit includes a hysteresis
value about equal to a supply potential.
8. (Original) The circuit of claim 7, further comprising a clamp circuit coupled to the output
port, the clamp circuit to hold the output port at the supply potential.
9. (Currently Amended) An apparatus comprising:
a plurality of circuits, each of the plurality of circuits including a plurality of drivers
coupled to a first transformer circuit, wherein the first transformer circuit in each of the plurality
of circuits is coupled to a second transformer circuit including a center-tap and each of the
plurality of drivers in each of the plurality of driver circuits is coupled to a separate input port ;
and
an output port connected to the center tap producing a half-raised cosine output signal
corresponding to signals on each of the separate input port.

AMENDMENT AND RESPONSE UNDER 37 CFR § 1.111

Serial Number: 10/749,928

Filing Date: December 29, 2003

Title: DRIVER CIRCUIT

Assignee: Intel Corporation

Page 5

Dkt: 884.A75US1 (INTEL)

10. (Original) The apparatus of claim 9, wherein the first transformer circuit in at least one of the plurality of driver circuits comprises a loosely coupled transformer.

11. (Original) The apparatus of claim 10, further comprising a capacitive load coupled to the center-tap.

12. (Currently Amended) ~~The apparatus of claim 11,~~ An apparatus comprising:
a plurality of circuits, each of the plurality of circuits including a plurality of drivers coupled to a first transformer circuit, [wherein] the first transformer circuit in each of the plurality of circuits is coupled to a second transformer circuit including a center-tap and each of the plurality of drivers in each of the plurality of driver circuits is coupled to a separate input port, where the first transformer circuit in at least one of the plurality of driver circuits comprises a loosely coupled transformer, and
a capacitive load coupled to the center- tap, and [wherein] the capacitive load comprises a complementary metal-oxide field-effect transistor.

13. (Currently Amended) The apparatus of claim 12 ~~[[9]]~~, wherein the second transformer comprises an auto-transformer.

14. (Currently Amended) An apparatus comprising:
a communication circuit formed on a substrate; and
a power supply circuit formed on the ~~[[die]]~~ substrate to provide power to the communication circuit, the power supply circuit including:
a first driver coupled to an input port;
a delay circuit coupled to the input port;
a second driver coupled to the delay circuit; and
an auto-transformer coupled to the first driver, to the second driver, and to an output port, the output port being coupled to a capacitive load and the capacitive load being coupled to the communication circuit to provide power to the communication circuit.

AMENDMENT AND RESPONSE UNDER 37 CFR § 1.111

Serial Number: 10/749,928

Filing Date: December 29, 2003

Title: DRIVER CIRCUIT

Assignee: Intel Corporation

Page 6

Dkt: 884.A73US1 (INTEL)

15. (Original) The apparatus of claim 14, wherein the communication circuit comprises a communication base station.

16. (Original) The apparatus of claim 15, wherein the transformer includes a leakage inductance, the capacitive load includes a capacitance, and the delay circuit includes a delay about equal to a product of π and the square-root of a product of the leakage inductance and the capacitance.

17. (Original) The apparatus of claim 16, wherein the processor comprises a reduced instruction set processor.

18. (Original) The apparatus of claim 14, further comprising a processor coupled to the communication circuit.

19. (Original) The apparatus of claim 18, wherein the processor comprises a very-long instruction word processor.

20. (Original) A method comprising:
 receiving a first input signal;
 receiving a second input signal, the second input signal being a time-delayed version of the first input signal; and
 processing the first input signal and the second input signal to generate a half-raised cosine signal.

21. (Original) The method of claim 20, wherein receiving the first input signal comprises receiving a digital signal.

22. (Original) The method of claim 21, wherein receiving the second input signal comprises receiving a digital signal.

AMENDMENT AND RESPONSE UNDER 37 CFR § 1.111

Serial Number: 10/749,928

Filing Date: December 29, 2003

Title: DRIVER CIRCUIT

Assignee: Intel Corporation

Page 7

Dkt: 884.A75US1 (INTEL)

23. (Original) The method of claim 22, wherein processing the first input signal and the second input signal comprises providing a signal path including a first driver, an inductor, and a capacitive load for the first input signal and a signal path including a second driver, the inductor, and the capacitive load for the second input signal.

24. (Original) The method of claim 20, wherein receiving the first input signal comprises receiving a low-to-high transition signal.